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Kia Silverbrook

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SILVERBROOK RESEARCH PTY LTD  
393 DARLING STREET  
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EXAMINER

PARK, CHAN S

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/803,073	<b>Applicant(s)</b> SILVERBROOK, KIA	
	<b>Examiner</b> CHAN S. PARK	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-28 and 31-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-28 and 31-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment was received on 5/21/08, and has been entered and made of record. Currently, **claims 1-6, 8-28 and 31-35** are pending.

### ***Specification***

2. The corrected or substitute specification was received on 5/21/08. The specification is acceptable.

### ***Terminal Disclaimer***

3. The terminal disclaimer filed on 6/19/08 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of the application number 10/803,077 and U.S. Patent No. 7,040,823 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Response to Arguments***

4. Upon review of the references of Inoue (U.S. Patent No. 6,120,127) and Purpura (U.S. Patent No. 6,973,518), which were cited in the Office Action dated 2/27/08 under 35 U.S.C. 103(a), the examiner notes that the reference can still be interpreted to maintain the rejections, as currently amended.

**With respect to claim 1**, Inoue discloses a printing and displaying device comprising:

a flat panel display for displaying images (display unit 2103 in figs. 43 & 45);  
a printer (printer unit 2105 in figs. 43 & 45) including a printhead for printing onto paper (col. 52, lines 25-34); and

a stand for supporting the flat panel display and the printer (note that the body with the hinge and legs supporting the display & printer units in figs. 43 & 45 are construed as the claimed stand) for operation remote from a computer (note that this computing device is remote from the other computer that supplies data), the flat panel display being supported at an angle between 0 to 45 degrees to the vertical (the unit can be adjusted to form an angle between 0 to 45 degrees to the vertical), wherein

the stand includes at least one receptacle configured to accept at least one replaceable ink cartridge for supplying ink to the printer (body including the printhead in col. 52, lines 25-34).

This particular embodiment of Inoue does not explicitly teach that the stand includes receptacle configured to accept a replaceable ink cartridge. However, Inoue, in the other embodiment, teaches the receptacle for accepting a replaceable ink cartridge (col. 26, lines 53-58). At the time of the invention, it would have been obvious to one of ordinary skill in the art to include this receptacle for accepting a replaceable ink cartridge in order to replace the exhausted cartridge.

Inoue does not explicitly disclose that the device is configured to receive print data to be printed, and display data to be displayed, from a computer system.

Purpura, the same field of endeavor of the portable personal computer art (col. 5, lines 61-62), discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34).

Furthermore, Purpura discloses the printing and display including a connection configured to allow releasable operative connection of the computer system (the network connection including an Ethernet port for connecting the device to the Internet in col. 8, lines 17-35 & fig. 4) to the printing and display device, for receiving the print data and the display data from the computer system. Note that the Ethernet cable is a releasable operative connection.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing and display device of Inoue to communicate with computer system (Internet network) to receive image data for display and printing.

The suggestion/motivation for doing so would have been to provide a large database access to the user for displaying and printing images.

Therefore, it would have been obvious to combine Inoue with Purpura to obtain the invention as specified in claim 1.

The applicant states that the printing and displaying device is a separate 'stand alone' device. The examiner agrees with the applicant, in that the structure of the current invention is different from the device of Inoue. However, this difference is not apparent in the current claim wording. It is noted that device of Inoue (the printing and display device) is also at a position remote from a computer that is connected via a

network. Furthermore, it is well known to one of ordinary skill in the art that the device of Inoue can be modified to receive image data from the computer via the network.

Therefore, the previous rejections, as cited in the Office Action dated 2/27/08, are maintained in this Office action.

5. Furthermore, the applicant's arguments with respect to claims 1-6, 8-28 and 31-35 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

The following quotations of 37 § CFR 1.75(a) is the basis of objection:

(a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

6. Claims are objected to because of the following informalities:

Claim 12, line 1, "in claim 1" should be -- in claim 11 --;

Claim 13, line 1, "in claim 10 or 11" should be -- in claims 11 or 12 --; and

Claim 14, line 1, "in claim 10 or 11" should be -- in claims 11 or 12 --.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

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1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/922,836 (refer to the amendment filed on 5/21/08) in view of Inoue U.S. Patent No. 6,120,127. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims of the instant application are broader recitation of claims of 836'.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**With respect to claim 1**, claim 1 of Application 836' recites a printing and display device comprising:

a flat panel display for displaying images from a computer;

a printer including a printhead for printing onto paper;

a stand for supporting the flat panel display and the printer for operation remote from the computer, the flat panel display being supported at an angle between 0 to 45 degrees to the vertical; and

a connection configured to allow releasable operative connection of the computer to the printing and displaying device.

The application, however, does not explicitly disclose the stand including at least one receptacle configured to accept at least one replaceable ink cartridge for supplying ink to the printer.

Inoue discloses the receptacle for accepting a replaceable ink cartridge (col. 26, lines 53-58). At the time of the invention, it would have been obvious to one of ordinary skill in the art to include this receptacle for accepting a replaceable ink cartridge in order to replace the exhausted cartridge.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation of “the flat panel display being supported at an angle between 0 to 45 degrees to the vertical”. It is unclear as to which vertical line this is referring to. Is it referring to a vertical line formed with respect to the printer, the stand, or the ground? Clarification is respectfully requested.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3, 6, 8-16, 18, 21-24, 27, 28, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Purpura.

**With respect to claim 1**, Inoue discloses a printing and displaying device comprising:

a flat panel display for displaying images (display unit 2103 in figs. 43 & 45);  
a printer (printer unit 2105 in figs. 43 & 45) including a printhead for printing onto paper (col. 52, lines 25-34); and

a stand for supporting the flat panel display and the printer (note that the body with the hinge and legs supporting the display & printer units in figs. 43 & 45 are construed as the claimed stand) for operation remote from a computer (note that this computing device is remote from the other computer that supplies data), the flat panel display being supported at an angle between 0 to 45 degrees to the vertical (the unit can be adjusted to form an angle between 0 to 45 degrees to the vertical), wherein

the stand includes at least one receptacle configured to accept at least one replaceable ink cartridge for supplying ink to the printer (body including the printhead in col. 52, lines 25-34).

This particular embodiment of Inoue does not explicitly teach that the stand includes receptacle configured to accept a replaceable ink cartridge. However, Inoue, in the other embodiment, teaches the receptacle for accepting a replaceable ink cartridge (col. 26, lines 53-58). At the time of the invention, it would have been obvious to one of ordinary skill in the art to include this receptacle for accepting a replaceable ink cartridge in order to replace the exhausted cartridge.

Inoue does not explicitly disclose that the device is configured to receive print data to be printed, and display data to be displayed, from a computer system.

Purpura, the same field of endeavor of the portable personal computer art (col. 5, lines 61-62), discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34).

Furthemore, Purpura discloses the printing and display including a connection configured to allow releasable operative connection of the computer system (the network connection including an Ethernet port for connecting the device to the Internet in col. 8, lines 17-35 & fig. 4) to the printing and display device, for receiving the print data and the display data from the computer system. Note that the Ethernet cable is a releasable operative connection.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing and display device of Inoue to communicate with computer system (Internet network) to receive image data for display and printing.

The suggestion/motivation for doing so would have been to provide a large database access to the user for displaying and printing images.

Therefore, it would have been obvious to combine Inoue with Purpura to obtain the invention as specified in claim 1.

**With respect to claim 3**, Inoue discloses a printing and display device as claimed in claim 1, wherein at least one receptacle is formed in base portion of the stand. Note that the body of fig. 36 is construed as the base portion of the stand. Furthermore, at the time of the invention it would have been obvious to one of ordinary skill in the art to place the receptacle in the base portion since the printhead is located in the base portion.

**With respect to claim 6**, Purpura discloses a printing and display device, configured to receive print data to be printed, and display data to be displayed from the computer system (receiving display data via Internet in col. 6, lines 25-34). Also, refer to the argument presented above in claim 1.

**With respect to claim 8**, Purpura discloses a printing a display device as claimed in claim 1, wherein the connection includes at least one socket for accepting at least one corresponding data cable (Ethernet cable in col. 8, lines 17-35).

**With respect to claim 9**, Purpura discloses a printing a display device as claimed in claim 1, wherein the connection includes a wireless receiver for receiving the print data and/or the display data (wireless card in col. 8, lines 17-35 & fig. 4).

**With respect to claim 10**, Purpura discloses a printing a display device as claimed in claim 1, wherein the connection is a Universal Synchronous Bus (USB) connection (USB in col. 8, lines 17-35).

**With respect to claim 11**, Inoue discloses a printing and display device, further including a paper feed mechanism for feeding paper to the printhead for printing, the printhead being arranged to print onto the paper (note that single sheet from the tray is fed for printing according to fig. 39).

**With respect to claim 12**, Inoue discloses a printing and display device, wherein the paper feed mechanism is configured to position the paper substantially parallel in at least one direction with respect to a plane defined by the flat panel display (note that the paper in the tray is fed to the printhead 1406 wherein the paper at that position is substantially parallel to the display device 1104 in fig. 36).

**With respect to claim 13**, Inoue discloses a printing and display device as claimed in claim 9 or 10, wherein the paper feed mechanism is configured to accept a single sheet of paper at a time for printing (note that a single sheet in the tray is fed at a time for printing according to fig. 38).

**With respect to claim 14**, Inoue discloses a printing and display device, wherein the paper feed mechanism includes a paper separator for feeding a single sheet of paper to the printhead from a stack of sheets of paper (note that a single sheet in the tray is fed at a time for printing according to fig. 38).

**With respect to claim 15**, Inoue discloses a printing and display device, wherein the printer is a process color printer (printer having a color recording head in col. 52, lines 54-61).

**With respect to claim 16**, Inoue discloses a printing and display device, wherein the printer is an inkjet printer (ink jet recording apparatus in col. 53, lines 26-28).

**With respect to claim 18**, Inoue discloses a printing and display device, wherein the printer is a page-width printer (col. 52, lines 25-34).

**With respect to claim 21**, Inoue discloses a printing and display device, configured to enable printing of standard A4 or Letter sized sheets of paper (col. 15, lines 21-23).

**With respect to claim 22**, Inoue discloses a printing and display device, configured such that paper to be printed is fed manually into a paper path (user must manually place the papers in the tray in fig. 68) that directs the paper from a region adjacent the upper edge of the flat panel display, past the printhead for printing, then out of the device adjacent a lower edge of the flat panel display (referring to fig. 68, the paper is initially fed from the region adjacent to the upper edge of the flat panel display and then out from the bottom part of the display according to fig. 68).

Also, note that the printing and display device as shown in fig. 68 includes a stand (the body and the legs supporting the actual display device) wherein the stand holds the printhead (3302) for printing onto a paper.

**With respect to claim 23**, Inoue discloses a printing and display device, further including a curved paper guide disposed (guide 3332 in fig. 68), when the device is in use, beneath the flat panel display (fig. 68), such that the paper that has been printed is urged horizontally as it exits the device (discharging the printed paper in fig. 68).

**With respect to claim 24**, Inoue discloses a printing and display device, wherein the flat panel display is Liquid Crystal Display (display in col. 40, lines 65-67).

**With respect to claim 27**, Inoue discloses a printing and display device, wherein the printhead is configured to print photographic images (col. 42, lines 44-45). It is apparent that the printer of fig. 68 is also used to print images.

**With respect to claim 28**, Inoue discloses a printing and display device, wherein the printhead is configured to print image and text data (col. 42, lines 44-45 & fig. 1). It is apparent that the printer of fig. 68 is also used to print characters and images.

**With respect to claim 32**, Inoue discloses a printing and display device, further comprising:

the device being configured such that, during printing, the paper being printed passes between the flat panel display and the printhead (discharging the paper between the display and the printhead in col. 29, line 66 – col. 30, line 6), or passes behind the flat panel display and the printhead relative to a viewing position of the flat panel display.

**With respect to claim 33**, Inoue discloses a printing and display device, further comprising:

a multi-sheet paper holder (tray for holding papers according to col. 31, lines 45-46 & tray 3333 or automatic paper sheet feeding device 3330 in col. 44, lines 40-54);  
and

a paper sheet separator configured to separate a single paper sheet from the paper in the paper holder for supply to the printhead (a single sheet is fed automatically in the printing unit for printing in col. 31, lines 55-60 & col. 44, lines 42-44).

10. Claims 2 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Nicolas et al. U.S. Patent No. 6,593,944 (hereinafter Nicolas).

**With respect to claim 2**, the combination discloses a printing and display device as claimed in claim 1, but it does not explicitly disclose that the viewable size of the printing and display device exceeds 40cm along a diagonal of the printing and display device.

Nicolas, the same field of endeavor of the laptop computer art, discloses a laptop with a 17-inch monitor display (col. 1, lines 46-49). Note that 17-inch is longer than 40 cm.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a bigger (17-inch monitor) display into the printing and display device of Inoue.

The suggestion/motivation for doing so would have been to provide a wider and bigger display for viewing images.

Therefore, it would have been obvious to combine Inoue with Nicolas to obtain the invention as specified in claim 2.

**With respect to claim 19**, the combination discloses a printing and display device as claimed in claim 1, but it does not explicitly disclose that the flat panel display measures at least 14 inches on the diagonal.

Nicolas, the same field of endeavor of the laptop computer art, discloses a laptop with a 17-inch monitor display (col. 1, lines 46-49).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a bigger (17-inch monitor) display into the printing and display device of Inoue.

The suggestion/motivation for doing so would have been to provide a wider and bigger display for viewing images.

Therefore, it would have been obvious to combine Inoue with Nicolas to obtain the invention as specified in claim 19.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Inui et al. U.S. Patent No. 6,086,185 (hereinafter Inui).

**With respect to claim 4**, the combination discloses a printing and display device of claim 1, but it does not explicitly disclose that the device includes at least one ink duct configured to supply ink from the cartridge to the printhead when the cartridge is engaged with the receptacle.

Inui, the same field of endeavor of the inkjet printer art, discloses ink cartridges attached from rearward of printhead wherein the ink is supplied to the printhead through pipes/ducts.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printer of Inoue to include the ink pipes/ducts as taught by Inui.

The suggestion/motivation for doing so would have been to place ink cartridges away from the printhead for saving space around the printhead.



Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 4.

12. Claims 5, 17, 20 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Silverbrook U.S. Patent No. 5,984,446.

**With respect to claim 5**, the combination discloses a printing and display device of claim 1, but it does not explicitly disclose that the printer includes at least two printheads, the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the paper.

Silverbrook, the same field of endeavor of the inkjet printing art, discloses an inkjet printer including at least two printheads (printheads 50 in fig. 12), the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the paper (printing on both sides by two printheads according to col. 49, lines 29-32 & fig. 12).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printer of Inoue to incorporate another printhead as taught by Silverbrook.

The suggestion/motivation for doing so would have been to facilitate a faster double-side printing by eliminating the step feeding back the printed paper for the second side printing.

Therefore, it would have been obvious to combine Inoue with Silverbrook to obtain the invention as specified in claim 5.

**With respect to claim 17**, the combination discloses a printing and display device of claim 1, but it does not explicitly disclose that the printer has more than 5,000 inkjet nozzles.

Silverbrook, the same field of endeavor of the inkjet printing art, discloses an inkjet printer including more than 5,000 inkjet nozzles (col. 19, lines 1-3).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printhead of Inoue to include more than 5,000 inkjet nozzles as taught by Silverbrook.

The suggestion/motivation for doing so would have been to provide a faster and more efficient color inkjet printing process (col. 19, lines 1-11 of Silverbrook).

Therefore, it would have been obvious to combine Inoue with Silverbrook to obtain the invention as specified in claim 17.

**With respect to claims 20 and 34**, arguments analogous to those presented for claim 5, are applicable.

13. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Morikawa et al. U.S. Patent No. 6,771,388 (hereinafter Morikawa).

**With respect to claim 25**, the combination discloses a printing and display device of claim 1, but it does not explicitly disclose the printhead configured to receive halftoned print data to be printed onto the paper.

Morikawa, the same field of endeavor of the inkjet printing art, discloses an inkjet printer wherein the inkjet printer processes image data to generate halftoned print data (col. 9, lines 1-11) and prints the halftoned print data using printhead (col. 9, lines 36-45).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printhead of Inoue to receive halftoned print data to be printed onto the paper as taught by Morikawa.

The suggestion/motivation for doing so would have been to reduce or eliminate the discontinuous gradation reproduction by applying the halftone processing to the printer of Inoue (abstract of Morikawa).

Therefore, it would have been obvious to combine Inoue with Morikawa to obtain the invention as specified in claim 25.

**With respect to claim 26**, the combination discloses a printing and display device of claim 1, but it does not explicitly disclose the device including a halftoning unit for generating image data and supplying it to the printhead for printing.

Morikawa, the same field of endeavor of the inkjet printing art, discloses an inkjet printer wherein the inkjet printer processes image data to generate halftoned print data (col. 9, lines 1-11) and prints the halftoned print data using printhead (col. 9, lines 36-45).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printer of Inoue to incorporate the halftoning unit to generate halftone image data and to print the data using the printhead as taught by Morikawa.

The suggestion/motivation for doing so would have been to reduce or eliminate the discontinuous gradation reproduction by applying the halftone processing to the printer of Inoue (abstract of Morikawa).

Therefore, it would have been obvious to combine Inoue with Morikawa to obtain the invention as specified in claim 26.

14. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Nickum U.S. Patent No. 7,003,279.

**With respect to claim 31**, the combination discloses the printing and display device as claimed in claim 1 wherein Purpura discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34).

The combination of Inoue and Purpura, however, does not explicitly disclose a data connection for receiving print data from a computer; and a data connection hub configured to allow connection of at least one data-receiving device to the printing and display device, enabling the data-receiving device to receive data from the computer.

Nickum, the same field of endeavor of the laptop computer art, discloses a laptop (laptop computer 400 in fig. 5) computer including a data connection (interface) for

receiving data from a computer; and a data connection hub configured to allow connection of at least one data-receiving device to the laptop device, enabling the data-receiving device (external wireless interface device in fig. 5) to receive data from the computer (external wireless interface device col. 5, lines 48-54 for receiving data from the network).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the laptop of Inoue to include the interface for connecting the external wireless interface device as taught by Nickum.

The suggestion/motivation for doing so would have been to provide a wireless connection to the laptop even if the laptop does not have the internal wireless capability.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 31.

15. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Shenoy et al. U.S. Patent Application No. 2003/0197887 (hereinafter Shenoy).

**With respect to claim 35**, Inoue discloses a printing and display device as claimed in claim 1, wherein the device further includes an interface for receiving input from a user indicative of a print command (user inputting a recording command in col. 30, lines 40-45).

Inoue, however, does not explicitly teach that the device is configured to receive documents to be printed from a computer system;

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send, from the device to the computer system, a print request;  
receive, from the computer system and in response to the print request, a document to be printed; and  
print the document.

Shenoy, the same field of endeavor of printer accepting the print command (a user input for retrieving documents for print in paragraph 45), discloses a printer configured to:

receive documents to be printed from a computer system (paragraph 57);  
send, from the printer to the computer system, a print request (request for the document in paragraph 57);

receive, from the computer system and in response to the print request, a document to be printed (receiving/pulling document from the job store 140 in paragraph 57); and

print the document (paragraph 57).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the device of Inoue to include the function of requesting a desired document via the network as taught by Shenoy.

The suggestion/motivation for doing so would have been to save the memory in the printer by saving the print jobs at the external location.

Therefore, it would have been obvious to combine Inoue and Shenoy to obtain the invention as specified in claim 35.

***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571)272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/  
Examiner, Art Unit 2625

/Edward L. Coles/  
Supervisory Patent Examiner, Art Unit 2625

July 23, 2008